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ABSTRACT

This paper argues that the problems of minority and disadvantaged students at traditional colleges and universities are different from those students attending junior or community colleges. The goals and guidelines set up by the E.O.F. (Educational Opportunity Fund) Community Advisory Board at Rutgers University in Newark are delineated and criticized. Also included in this paper are two studies designed to investigate what, if any, particular factors could be identified which represented a profile useful in developing admissions criteria for E.O.F. students. From the data it was concluded that there are levels in several basic skills areas below which there is little chance that these students can complete a four-year traditional college program. Depending upon base competency levels for disadvantaged students established at each institution, if students do not possess the necessary minimal skills, they sould be referred to other institutions as well as given some counseling on alternate programs to help them meet their academic, social and employment ambitions. (TS)

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# An Examination of Factors Affecting Success of E.O.F. Students

By
Dr. David A. Smith-Gold

Recently, an article was published in "College English" entitled Reading in the Community College. The author, Thomas Farrell, presents information from several studies, one being his own, of which he concludes that reading scores are not reliable predictors of students' potential success in college. While this may be true for a traditional college population in either a two-year or community college it does not appear to be true for minority or disadvantaged students in competitive four-year institutions.

The problems of minority/disadvantaged students at traditional colleges and universities are quite different from those students attending two-year junior or community colleges. Students in the former category are under pressure to develop their reading and writing skills as quickly as possible. Many four-year institutions have English proficiency examinations which the students must pass in order to take upper level courses or graduate from the college. Reading programs for this group must be well designed. Whatever the type of courses available i.e., writing, reading, math or science skills, there must be a comprehensive developmental sequence that, at its conclusion, prepares the students to compete successfully with the majority of students attending the college.

Junior or community colleges are not usually under such stringent academic restrictions. Students at these institutions are not under time constraints to complete their academic programs in the traditional four-year

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time period. Students at Rutgers University - Newark must have a 3.20 (D ) grade point average after the accumulation of 24 credit hours or they are reviewed for academic suspension.

Free from these constraints, the students can work in extended, non-competitive, developmental programs. It is up to the individual students to complete the program based upon their unique needs and goals. The degree of motivation to learn and the students' priorities for academic advancement are left up to the individual. Because of the expectations and requirements within most four-year colleges, neither students or the programs that provide academic support for them can take such a Laissez-Faire attitude towards education.

We know the needs of the students. It should be easy then to set up a program for the disadvantaged students; if it were only so simple. Pat Hass in an article entitled "Ethnic Studies-Not Separate, But Not Equal" writes about the problems minority programs have in being accepted by the general college population. One of the statements of the author suggests that positive feelings were developed for minority programs where the programs of ethnic studies were accepted as an integral part of the general educational emphasis. I feel that this phenomenon is as true for academic support programs as well as ethnic studies programs established for minority or disadvantaged students.

If a program is developed which is pedagogically sound and prepares the students to meet the demands of the college could there be a problem? Yes there could be and there is. If it isn't the academic community

indicting you to put something into the heads of those kids (you know, the ones who never should have been in college in the first place) it's the community action boards that supposedly act as the watchdog of the community, telling you that their students must demonstrate a minimum of a one year reading and writing growth, whatever that means, in a six week summer program. Also, no matter what a disadvantaged student arrives at the classroom with, in relationship to reading and writing development, by the end of the second year they had better be reading on a twelfth grade reading level.

Recently, acting in its advisory capacity, the local E.O.F. Academic Committee of the Community Advisory Board of Rutgers University in Newark developed the following guidelines:

EDUCATIONAL OPPORTUNITY FUND
COMMUNITY ADVISORY BOARD
ACADEMIC PROGRAM COMMITTEE

The following goals are recommended for 1975 - 1976

A. The EOF academic program be evaluated and designed to ensure that all students will be able to:

1. Demonstrate at least a 12th grade level of reading comprehension by the end of their second year.

2. Successfully complete the English 101 Placement Test by the end of their third semester.

3. Demonstrate satisfactory comprehension of mathematics, which would include algebraic concepts, by the end of their second year.

4. Expand their vocabulary by 300 words each semester.

5. Successfully complete the Science Skills by the end of the second year.

6. A system will be developed to ensure that each student's academic performance will be reviewed at the end of each academic year.

B. The EOF Summer Program Proposal be evaluated and redesigned, if necessary, to ensure the following:

1. All students tested below 13.0 grade levels will be able to advance one grade level in reading, language arts, and mathematics.

2. All students will be able to demonstrate satisfactory comprehension of college study skills.

These academic recommendations were expected to be absorbed into the academic program and be reflected in the proposal developed by the E.O.F. Director at the college. The academic staff would, philosophically at least, be responsible for the implementation of these recommendations.

Beyond the fact that I have serious reservations about several of the above recommendations, what I question more is on what basis or criteria these proposals were developed. When members of the Academic Committee were questioned as to how and on what basis they had developed their recommendations, none of their answers reflected a knowledge or review of research as to what could reasonably be expected in the areas of achievement in either a summer program or regular semester's work with disadvantaged or any other type of population.

Even though I do not necessarily support the belief that all E.O.F. students need to read at the 12.0 reading level at the end of their second year, I feel it is critical to approach this particular recommendation at the point where students are admitted into the program. What we need to investigate is more than setting a reading proficiency level to be obtained

at the conclusion of the program, as ambiguous as that is, a determination of what level in as many areas as we can, the skills that would either be positive or negative factors in a student's ability to function in college. If we know the basic skills that our or any population must have in order to succeed, these skills levels should help us to determine the admissions criteria for entering students. When information is available which outlines, not some arbitrary skills level but, the basic elements which the majority of entering students need to survive, to ignore this information would be ludicrous.

Working from this assumption two studies, the second more complex than the first, were designed to investigate what, if any, particular factors could be identified which represented a profile useful in developing admissions criteria for the *E.O.P. students. A system "The Significant Parameter Analysis" for comparing and analyzing the skills levels necessary to perform adequately the academic requirements of the university was developed by Drs. Santarelli and Pine, both from the Physics Department at Rutgers University in Newark,

In order to assess what some of the factors are which appear to be positive indicators of success for E.O.P. students I will present a review of the data collected from the class of 1977 and compare it with the results obtained from the review of the class of 1973. After the cross comparison has been made an analysis will be made to see whether any of the factors appears to hold a greater level of importance for the E.O.P. students thus manifesting itself as an area to be considered when admissions criteria are being developed.

*E.O.P./E.O.F. are interchangeable funding sources for disadvantaged students.

## Significant Parameter Analysis

### Academic Foundations Department Class of 1977

POSITIVE FACTORS

| A | B | C | D |
|---|---|---|---|
| Performance related to factors in order of apparent importance | Number of students in each category of column A | % of students in column B having two-year, four semester cum of 3.00 or better | % score relative to population with grades or cums above 3.00 |
| Math SAT Scores (350-399) | 13 | 84% | +34 |
| Verbal SAT Scores (400-600) | 16 | 75% | +30 |
| Ethnic Background (Spanish) | 17 | 70% | +30 |
| Age Variable (26 and above) | 13 | 72% | +25 |
| Math SAT Scores (400-600) | 11 | 72% | +22 |
| Math CAT Scores (10.0 and above) | 29 | 66% | +21 |
| Reading CAT Scores (10.0 and above) | 56 | 66% | +21 |
| *Math Skills and Math 133 | 14 | 50% | +19 |
| Communication Skills III with English 101 | 31 | 77% | +15 |
| Females - Sex Variable | 61 | 55% | +11 |
| High School Rank (Upper 50%) | 49 | 57% | +10 |
| Location Variable | 32 | 56% | + 8 |
| *Science Skills | 29 | 31% | + 1 |

NEGATIVE FACTORS

| A | B | C | D |
|---|---|---|---|
| Science Skills | 18 | 27% | -3 |
| Inner City | 67 | 45% | -3 |
| *Communication Skills II & III | 16 | 56% | -6 |
| Ethnic Background (Black) | 72 | 33% | -7 |
| Verbal SAT Scores (300-400) | 29 | 38% | -7 |
| Ethnic Background (White) | 15 | 30% | -10 |
| Math CAT Scores (9.0 & below) | 62 | 35% | -10 |
| *No Math Skills and Math 133 | 24 | 20% | -11 |
| Age Variable (15-20) | 38 | 36% | -11 |
| Age Variable (21-25) | 31 | 35% | -12 |
| Communication Skills (more than three semesters) | 18 | 50% | -12 |
| High School Rank (over 50%) | 35 | 34% | -13 |
| Sex Factors (Males) | 44 | 29% | -15 |
| Communication Skills (E.S.L. & 2 semesters of CS) | 13 | 46% | -16 |
| Math SAT Scores (350 and below) | 41 | 34% | -16 |
| Verbal SAT Scores (300 and below) | 34 | 24% | -21 |
| Reading CAT Scores (10.0 and below) | 42 | 19% | -26 |

*Data relates to performance among courses in a similar discipline and not the students' overall cumulative average.

## Significant Parameter Analysis

### Academic Foundations Department Class of 1976

| | A | B | C | D |
|---|---|---|---|---|
| | Performance related factors in order of apparent importance (relative to 19%) | Numbers of students in each category of column A | % of students in column B having cum better than 3.0 | % "score" relative to 19% (D C-19) |
| POSITIVE FACTORS | Reading Grade level (12-14) | 61 | 33% | +14 |
| | Math Grade level (12-14) | 28 | 32% | +13 |
| | Math Grade level (9-12) | 56 | 29% | +10 |
| | Math SAT (400 or above) | 38 | 29% | +10 |
| | Verbal SAT (400-500) | 19 | 26% | + 7 |
| | Reading Grade level (9-12) | 95 | 22% | + 3 |
| | H.S. Class rank (top half) | 108 | 21% | + 2 |
| NEGATIVE FACTORS | Verbal SAT (300-400) | 70 | 18% | -1 |
| | Math Grade level (3-9) | 127 | 14% | -5 |
| | Math SAT (300-400) | 71 | 14% | -5 |
| | H.S. Class rank (bottom half) | 114 | 12% | -7 |
| | Reading Grade level (3-9) | 88 | 10% | -9 |
| | Verbal SAT (200-300) | 50 | 10% | -9 |
| | Math SAT (200-300) | 31 | 7% | -12 |

Although the parameter analysis does not show statistical significance it does point out an apparent order of importance for each variable in relationship to students' potential success or failure in this academic situation. The level than becomes an index of characteristics which are either working for or against the students. Scores in column (D) represent an analysis of the relative importance of each item to the total comparison of factors which act as positive or negative characteristics in the profile of the E.O.P. students.

When reviewing the information gathered from the two classes of E.O.P. students it should be apparent that the two most important areas which should be considered when developing admissions criteria for students entering this particular institution are the reading/verbal scores and math scores. Students with math SAT scores above 350, math CAT scores above 10.0 and verbal SAT scores above 400 and CAT reading scores above 10.0 should be considered to have positive indicators that they can obtain adequate grades in college. Other positive variables include students who are twenty-six years of age and above and those that rank in the upper 50% of their graduating high school class.

There appears to be a strong indication that women selected for this program rather than their male counterparts have a better chance of completing it successfully. Whereas women received a rank of +10, men in the program had a standing of -15. The apparent importance of this variable as a positive factor for women and a negative factor for men is not surprising to me. What is interesting is the seemingly large disparity between the scores between the two populations.

Variable preceded by an asterisk indicates that each particular variable listed relates to the success factor in courses taken by the students after they have completed the prescribed developmental work in the program. One or more developmental courses are taken by the students before they take the more complicated courses in a related subject area, courses which are a part of the requirements for all entering freshmen.

Communication Skills III is the last course in the program's communications sequence. After its successful completion, the students take a freshman English composition class (English 101). A review of the data would suggest that students who need to take only one communication skills course have a better chance of successfully completing the English composition course. Students needing two or more of the communication skills courses, plus those students taking courses in English as a Second Language display a negative factor in their chances of passing the English 101 course. What this data reduces to is that, the greater the need for developmental assistance, the less chances for success in the regular English courses.

For students who take one of our science skills courses, there appears to be a negligible effect produced by students taking one of these courses and later taking one of the regular science classes. The scores are quite different in the math skills area however. A review of the information in this area suggests that students who take courses in math skills show a positive relationship between the material learned in these courses and the grades received in the regular math courses. It is also apparent that students who go directly into the regular math courses without first taking

one of the developmental courses have less of a chance of passing the courses.

There are two areas between the studies completed on the class of 1976 and the class of 1977 where obvious comparisons can be made. In both of these examinations, math and reading/verbal scores produced a high level of importance relative to the levels presented by students in these two areas as they entered the program and their averages at the end of four semesters. High or low scores in each of these areas acted as either strong positive or negative factors in the students' chances for success. Students with reading scores from 9.0 and above on the CAT and verbal scores above 400 on the SAT appear to have a substantially better chance of doing well. Verbal scores below 400 on the SAT and CAT reading scores below 9.0 appear to present little chance for the students doing work successfully.

In the area of math development, a score of 400 and above on the SAT and 10.0 and above on the CAT appear to be positive factors for the entering student to cope with math related tasks at the college. At the other end, math CAT scores below 9.0 and math SAT scores below 350 appear as negative factors for the students.

The variable of high school rank appears to have greater significance in the present study than when the review was completed on the class of 1976. Students graduating in the upper half of the class have this variable as a positive factor while those graduating in the lower half of their class have the variable as a negative factor.

What conclusions can be drawn from the data from both of these studies? The most important is that there are levels in several basic skills areas below which, even taking into consideration the uniqueness of the objectives of programs for disadvantaged students, suggest that there is little chance that these students can complete a four-year traditional college program. Even such mammoth institutions as City University in New York with its liberal open door policy has had to succumb to the times and realize that there is a point where there is such a diminishing return from the investment of support allocations for disadvantaged programs that there must be some base level admissions requirements for entering students.

In attempting to develop base competency levels for disadvantaged students we are not trying to reduce our commitment to minority students. It is better however to be realistic and honest with our students. Depending upon the base competency levels established at each institution, if a students does not possess the necessary minimal skills, they should be referred to other institutions while at the same time being given some counseling on other alternative programs to help them meet their academic, social and employment ambitions. I feel it better to have the disadvantaged student be confronted with reality from the beginning, being told that their expectations are not plausable at your institution, while at the same time providing information about other situations they might find rewarding. I feel this is a more positive course of action rather than accepting them into your program, only to have them flunk out in two years. It is better to provide the students with realistic information instead of facing a hostile, frustrated student at the end of a two-year possibly unproductive educational experience.